

CLAIMS:

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent is:

1. An instant voice messaging system for delivering instant messages over a packet-switched network, the system comprising:

a client connected to the network, the client selecting one or more recipients, generating an instant voice message therefor, and transmitting the selected recipients and the instant voice message therefor over the network; and

a server connected to the network, the server receiving the selected recipients and the instant voice message therefor, and delivering the instant voice message to the selected recipients over the network, the selected recipients enabled to audibly play the instant voice message.

2. The instant voice messaging system according to Claim 1, wherein the packet-switched network is a local network.

3. The instant voice messaging system according to Claim 1, wherein the packet-switched network is the Internet.

4. The instant voice messaging system according to Claim 1, wherein the client requests a list of recipients associated with the client from the server and the server transmits the list of recipients to the client for selection of the one or more recipients.

5. The instant voice messaging system according to Claim 1, wherein the server delivers the instant voice message to the selected recipients that are available.

6. The instant voice messaging system according to Claim 1, wherein the server temporarily stores the instant voice message if a selected recipient is unavailable and delivers the stored instant voice message to the selected recipient once the selected recipient becomes available.

7. The instant voice messaging system according to Claim 1, wherein the client records the instant voice message in an audio file, transmits the audio file to the server, and the server delivers the audio file to the selected recipients, the selected recipients being enabled to audibly play the audio file.

8. The instant voice messaging system according to Claim 7, wherein the client signal processes, compresses and encrypts the audio file, and the selected recipients being enabled to decrypt and decompress the audio file before audibly playing the audio file.

9. The instant voice messaging system according to Claim 1, wherein the client buffers each of a plurality of successive portions of the instant voice message as the instant message is recorded, and the client transmits each successive buffered portion to the server for delivery to the to the selected recipients, the selected recipients being enabled to audibly playing each successive portion as it is delivered.

10. The instant voice messaging system according to Claim 1, wherein the client is enabled to attach one or more files to the instant voice message and the selected recipients are enabled to store or display the one or more attached files.

11. The instant voice messaging system according to Claim 1, the system further comprising a public switched telephone network (PSTN) telephone connected to the network to provide input audio of the instant voice message to the client.

12. The instant voice messaging system according to Claim 1, the system further comprising a voice-over-internet-protocol (VoIP) telephone connected to the network to provide input audio of the instant voice message to the client.

13. An instant voice messaging system for delivering instant messages over a packet-switched network enabling public switched telephone network (PSTN) support, the system comprising:

a PSTN telephone connected to the network for providing input audio;

a client connected to the network, the client selecting one or more recipients, generating an instant voice message therefor using the input audio provided by the PSTN telephone, and transmitting the selected recipients and the instant voice message therefor over the network;

a server connected to the network, the server receiving the selected recipients and the instant voice message therefor, and delivering the instant voice

message to the selected recipients over the network, the selected recipients being enabled to audibly play the instant voice message.

14. An instant voice messaging system for delivering instant messages over a packet-switched network, the system comprising:

a voice-over-internet-protocol (VoIP) telephone connected to the network for providing input audio;

a client connected to the network, the client selecting one or more recipients, generating an instant voice message therefor using the input audio provided by the VoIP telephone, and transmitting the selected recipients and the instant voice message therefor over the network;

a server connected to the network, the server receiving the selected recipients and the instant voice message therefor, and delivering the instant voice message to the selected recipients over the network, the selected recipients being enabled to audibly play the instant voice message.

15. An instant voice messaging system for delivering instant messages over a plurality of packet-switched networks, the system comprising:

a client connected to a local network, the client selecting one or more external recipients connected to an external network outside the local network, generating an instant voice message therefor, and transmitting the selected recipients and the instant voice message therefor over the local network and the external network; and

a server connected to the external network, the server receiving the selected recipients and the instant voice message therefor, and delivering the instant voice message to the selected recipients over the external network, the selected recipients being enabled to audibly play the instant voice message.

16. The instant voice messaging system according to Claim 15, the client further selects one or more local recipients connected to the local network and transmits the selected local recipients and the instant voice message therefor over the local network, wherein the system further comprises:

a local server connected to the local network, the local server receiving the selected local recipients and the instant message therefor from the client, and delivering the instant voice message to the selected local recipients over the local network, the selected local recipients being enabled to audibly play the instant voice message.

17. The instant voice messaging system according to Claim 15, wherein the local network is a network within an enterprise.

18. The instant voice messaging system according to Claim 15, wherein the external network is the Internet.

19. The instant voice messaging system according to Claim 15, wherein the client requests a list of recipients associated with the client from the server and the

server transmits the list of recipients to the client for selection of the one or more recipients.

20. The instant voice messaging system according to Claim 15, wherein the server delivers the instant voice message to the selected recipients that are available.

21. The instant voice messaging system according to Claim 15, wherein the server temporarily stores the instant voice message if a selected recipient is unavailable and delivers the stored instant voice message to the selected recipient once the selected recipient becomes available.

22. The instant voice messaging system according to Claim 15, wherein the client records the instant voice message in an audio file, transmits the audio file to the server, and the server delivers the audio file to the selected recipients, the selected recipients being enabled to audibly play the audio file.

23. The instant voice messaging system according to Claim 22, wherein the client signal processes, compresses and encrypts the audio file, and the selected recipients are enabled to decrypt and decompress the audio file before audibly playing the audio file.

24. The instant voice messaging system according to Claim 15, wherein the client buffers each of a plurality of successive portions of the instant voice message as

the instant message is recorded, and the client transmits each successive portion to the server for delivery to the selected recipients, the selected recipients being enabled to audibly playing each successive portion as it is delivered.

25. The instant voice messaging system according to Claim 15, wherein the client is enabled to attach one or more files to the instant voice message and the selected recipients are enabled to store or display the one or more attached files.

26. The instant voice messaging system according to Claim 15, the system further comprising a public switched telephone network (PSTN) telephone connected to the local network to provide input audio of the instant voice message to the client.

27. The instant voice messaging system according to Claim 15, the system further comprising a voice-over-internet-protocol (VoIP) telephone connected to the local network to provide input audio of the instant voice message to the client.

28. An instant voice messaging system for delivering instant messages over a plurality of packet-switched networks enabling public switched telephone network (PSTN) support, the system comprising:

a PSTN telephone connected to a local network for providing input audio;

a client connected to the local network, the client selecting one or more external recipients connected to an external network outside the local network, generating an instant voice message therefor using the input audio provided by the PSTN telephone,

and transmitting the selected recipients and the instant voice message therefor over the local network and the external network;

a server connected to the external network, the server receiving the selected recipients and the instant voice message therefor, and delivering the instant voice message to the selected recipients over the external network, the selected recipients being enabled to audibly play the instant voice message.

29. An instant voice messaging system for delivering instant messages over a plurality of packet-switched networks, the system comprising:

a voice-over-internet-protocol (VoIP) telephone connected to a local network for providing input audio;

a client connected to the local network, the client selecting one or more external recipients connected to an external network outside the local network, generating an instant voice message therefor using the input audio provided by the VoIP telephone, and transmitting the selected recipients and the instant voice message therefor over the local network and the external network;

an server connected to the external network, the external server receiving the selected recipients and the instant voice message therefor, and delivering the instant voice message to the selected recipients over the external network, the selected recipients being enabled to audibly play the instant voice message.

30. An instant voice messaging system for delivering instant messages over a plurality of packet-switched networks, the system comprising:

a client connected to an external network, the client selecting one or more recipients connected to a local network, generating an instant voice message therefor, and transmitting the selected recipients and the instant voice message therefor over the external network; and

a external server system connected to the external network, the external server system receiving the selected recipients and the instant voice message, and routing the selected recipients and the instant voice message over the external network and the local network;

a local server connected to the local network, the local server receiving the selected recipients and the instant voice message therefor, and delivering the instant voice message to the selected recipients over the local network, the selected recipients being enabled to audibly play the instant voice message.

31. The instant voice messaging system according to Claim 30, the client further selects one or more external recipients connected to the external and transmits the selected external recipients over the external network to the external server, and the external server receives the selected external recipients and delivers the instant voice message to the selected external recipients over the external network, the selected external recipients being enabled to audibly play the instant voice message.

32. The instant voice messaging system according to Claim 30, wherein the local network is a network within an enterprise.

33. The instant voice messaging system according to Claim 30, wherein the external network is the Internet.

34. The instant voice messaging system according to Claim 30, wherein the client requests a list of recipients associated with the client from the external server system and the external server system transmits the list of recipients to the client for selection of the one or more recipients.

35. The instant voice messaging system according to Claim 30, wherein the local server delivers the instant voice message to the selected recipients that are available.

36. The instant voice messaging system according to Claim 30, wherein the local server temporarily stores the instant voice message if a selected recipient is unavailable and delivers the stored instant voice message to the selected recipient once the selected recipient becomes available.

37. The instant voice messaging system according to Claim 30, wherein the client records the instant voice message in an audio file, transmits the audio file to the external server, the external server system routes the audio file to the local server, and the local server delivers the audio file to the selected recipients, the selected recipients being enabled to audibly play the audio file.

38. The instant voice messaging system according to Claim 37, wherein the client signal processes, compresses and encrypts the audio file, and the selected recipients are enabled to decrypt and decompress the audio file before audibly playing the audio file.

39. The instant voice messaging system according to Claim 30, wherein the client buffers each of a plurality of successive portions of the instant voice message as the instant message is recorded, and the client transmits each successive buffered portion to the external server system, the external server system routes each successive portion to the local server, and the local server delivers each successive portion to the to the selected recipients, the selected recipients being enabled to audibly play each successive portion as it is delivered.

40. The instant voice messaging system according to Claim 30, wherein the client is enabled to attach one or more files to the instant voice message and the selected recipients are enabled to store or display the one or more attached files.

41. The instant voice messaging system according to Claim 30, the system further comprising a voice-over-internet-protocol (VoIP) telephone connected to the client via a local network, the client providing input audio of the instant voice message to the client via the local network.

42. The instant voice messaging system according to Claim 30, wherein the external server system comprises:

a transport server mesh including a plurality of transport servers for routing instant voice messages;

a directory server for maintaining the transport server mesh and facilitating load-balancing of the instant voice messages within the transport server mesh.

43. A method for instant voice messaging over a packet-switched network, the method comprising:

selecting one or more recipients for instant voice messaging at a client;

generating an instant voice message for the selected recipients at the client;

transmitting the selected recipients and the instant voice message therefor over the network from the client to a server;

receiving the selected recipients and the instant voice message therefor at the server;

delivering the instant voice message from the server to the selected recipients over the network; and

audibly playing the instant voice message at the selected recipients.

44. The method for instant voice messaging according to Claim 43, wherein the method further comprises:

requesting from the client a list of recipients associated with the client from the server; and

transmitting from the server the list of recipients to the client for selection of the one or more recipients.

45. The method for instant voice messaging according to Claim 43, wherein the method further comprises:

delivering the instant voice message from the server to the selected recipients that are available.

46. The method for instant voice messaging according to Claim 43, wherein the method further comprises:

temporarily storing at the server the instant voice message if a selected recipient is unavailable; and

delivering from the server the stored instant voice message to the selected recipient once the selected recipient becomes available.

47. The method for instant voice messaging according to Claim 43, wherein the method further comprises:

recording the instant voice message at the client in an audio file;

transmitting the audio file to the server;

delivering the audio file from the server to the selected recipients; and

audibly playing the audio file at the least one of the selected recipients.

48. The method for instant voice messaging according to Claim 47, wherein the method further comprises:

- signal processing, compressing and encrypting the audio file at the client;
- decrypting and decompressing the audio file at the at least one selected recipient; and
- audibly playing the decrypted and decompressed audio file at the least one of the selected recipients.

49. The method for instant voice messaging according to Claim 43, further comprising:

- buffering each of a plurality of successive portions of the instant voice message at the client as the instant message is recorded;
- transmitting from the client each successive buffered portion to the server;
- delivering each successive portion from the server to the selected recipients, the selected recipients audibly playing each successive portion as it is delivered.

50. The method for instant voice messaging according to Claim 43, wherein the method further comprises:

- attaching one or more files to the instant voice message at the client;
- storing or displaying the one or more attached files at the selected recipients.

51. The method for instant voice messaging according to Claim 43,
wherein the method further comprises:

providing input audio of the instant voice message to the client from a
public switched telephone network (PSTN) telephone connected to the network.

52. The method for instant voice messaging according to Claim 43,
wherein the method further comprises:

providing input audio of the instant voice message to the client from a
voice-over-internet-protocol (VoIP) telephone connected to the network.

53. A method for instant voice messaging over a packet-switched network
enabling public switched telephone network (PSTN) support, the method comprising:

providing input audio via a PSTN telephone connected over the network;
selecting one or more recipients for instant voice messaging at a client;
generating an instant voice message using the input audio from the PSTN
telephone for the selected recipients at the client;

transmitting the selected recipients and the instant voice message therefor
over the network from the client to a server;

receiving the selected recipients and the instant voice message therefor at
the server;

delivering the instant voice message from the server to the selected
recipients over the network; and

audibly playing the instant voice message at selected recipients.

54. A method for instant voice messaging over a packet-switched network, the method comprising:

providing input audio via a voice-over-internet-protocol (VoIP) telephone connected over the network;

selecting one or more recipients for instant voice messaging at a client;

generating an instant voice message using the input audio from the VoIP telephone for the selected recipients at the client;

transmitting the selected recipients and the instant voice message therefor over the network from the client to a server;

receiving the selected recipients and the instant voice message therefor at the server;

delivering the instant voice message from the server to the selected recipients over the network; and

audibly playing the instant voice message at the selected recipients.

55. A method for instant voice messaging over a plurality of packet-switched networks, the method comprising:

selecting one or more external recipients for instant voice messaging at a client connected to a local network, the one or more external recipients connected to an external network outside the local network;

generating an instant voice message for the selected external recipients at the client;

transmitting the selected external recipients and the instant voice message therefor over the local network and the external network;

receiving the selected external recipients and the instant voice message therefor at an external server connected to the external network;

delivering the instant voice message to the selected external recipients over the external network; and

audibly playing the instant voice message at the selected external recipients.

56. The method for instant voice messaging according to Claim 55, wherein the method further comprises:

requesting from the external server a list of external recipients associated with the client; and

transmitting the list of external recipients from the external server to the client for selection of the one or more external recipients.

57. The method for instant voice messaging according to Claim 55, wherein the method further comprises:

delivering the instant voice message from the external server to the selected recipients that are available.

58. The method for instant voice messaging according to Claim 55,
wherein the method further comprises:
temporarily storing the instant voice message at the external server if a
selected recipient is unavailable;
delivering the stored instant voice message to the selected recipient once
the selected recipient becomes available.

59. The method for instant voice messaging according to Claim 55,
wherein the method further comprises:
recording the instant voice message in an audio file at the client;
transmitting the audio file to the external server;
delivering the audio file to the selected recipients from the external server;
and
audibly playing the audio file at the selected recipients.

60. The method for instant voice messaging according to Claim 59,
wherein the method further comprises:
signal processing, compressing and encrypting the audio file at the client;
and
decrypting and decompressing the audio file at the selected recipients; and
audibly playing the decrypted and decompressed audio file at the selected
recipients.

61. The method for instant voice messaging according to Claim 55,
wherein the method further comprises:
buffering each of a plurality of successive portions of the instant voice
message at the client as the instant message is recorded;
transmitting from the client each successive portion to the external server;
delivering each successive portion from the external server to the selected
external recipients,
audibly playing each successive portion at the selected external recipients
as it is delivered.

62. The method for instant voice messaging according to Claim 55,
wherein the method further comprises:
attaching one or more files to the instant voice message;
storing or displaying the one or more attached files at the selected external
recipients.

63. The method for instant voice messaging according to Claim 55,
wherein the method further comprises providing input audio of the instant voice message
to the client from a public switched telephone network (PSTN) telephone over the local
network.

64. The method for instant voice messaging according to Claim 55, wherein the method further comprises providing input audio of the instant voice message to the client from a voice-over-internet-protocol (VoIP) telephone over the local network.

65. A method for instant voice messaging system over a plurality of packet-switched networks enabling public switched telephone network (PSTN) support, the method comprising:

providing input audio via a PSTN telephone connected to a local network;

selecting one or more external recipients for instant voice messaging at a client, the one or more external recipients connected to an external network outside the local network;

generating an instant voice message for the one or more external recipients using the input audio provided by the PSTN telephone;

transmitting the selected recipients and the instant voice message therefor over the local network and the external network;

receiving the selected recipients and the instant voice message therefor at a server connected to the external network;

delivering the instant voice message to the selected recipients from the server over the external network; and

audibly playing the instant voice message at the selected recipients.

66. A method for instant voice messaging system over a plurality of packet-switched networks, the method comprising:

providing input audio via a voice-over-internet-protocol (VoIP) telephone connected to a local network;

selecting one or more external recipients for instant voice messaging at a client, the one or more external recipients connected to an external network outside the local network;

generating an instant voice message for the one or more external recipients using the input audio provided by the VoIP telephone;

transmitting the selected recipients and the instant voice message therefor over the local network and the external network;

receiving the selected recipients and the instant voice message therefor at a server connected to the external network;

delivering the instant voice message to the selected recipients from the server over the external network; and

audibly playing the instant voice message at the selected recipients.

67. A method for instant voice messaging over a plurality of a plurality of packet-switched networks, the method comprising:

selecting one or more recipients connected to a local network at a client connected to an external network;

generating an instant voice message for the selected recipients at the client;

transmitting the selected recipients and the instant voice message therefor over the external network from the client to an external server system;

receiving the selected recipients and the instant voice message at the external server system;

routing the selected recipients and the instant voice message over the external network and the local network;

receiving the selected recipients and the instant voice message therefor at a local server connected to the local network;

delivering the instant voice message to the selected recipients over the local network;

audibly playing the instant voice message at the selected recipients.

68. The method for instant voice messaging according to Claim 67, wherein the method further comprises:

requesting a list of recipients associated with the client from the external server system; and

transmitting the list of recipients from the external server system to the client for selection of the one or more recipients.

69. The method for instant voice messaging according to Claim 67, wherein the method further comprises:

delivering the instant voice message from the local server to the selected recipients that are available.

70. The method for instant voice messaging according to Claim 67,
wherein the method further comprises:
temporarily storing the instant voice message at the local server if a
selected recipient is unavailable; and
delivering the stored instant voice message to the selected recipient once
the selected recipient becomes available.

71. The method for instant voice messaging according to Claim 67,
wherein the method further comprises:
recording the instant voice message in an audio file at the client;
transmitting the audio file from the client to the external server system;
routing the audio file from the external server system to the local server;
and
delivering the audio file from the local server to the selected recipients;
and
audibly playing the audio file at the selected recipients.

72. The method for instant voice messaging according to Claim 71,
wherein the method further comprises:
signal processing, compressing and encrypting the audio file at the client;
decrypting and decompressing the audio file at the selected recipients;
audibly playing the decrypted and decompressed audio file at the selected
recipients.

73. The method for instant voice messaging according to Claim 67, wherein the method further comprises:

- buffering each of a plurality of successive portions of the instant voice message at the client as the instant message is recorded;
- transmitting from the client each successive portion to the external server system;
- routing each successive portion from the external server system to the local server;
- delivering each successive portion from local server to the selected external recipients; and
- audibly playing each successive portion at the selected recipients as it is delivered.

74. The method for instant voice messaging according to Claim 67, wherein the method further comprises:

- attaching one or more files to the instant voice message at the client;
- storing or displaying the one or more attached files at the selected recipients.

75. The method for instant voice messaging according to Claim 67, wherein the method further comprises:

providing input audio of the instant voice message from a voice-over-internet-protocol (VoIP) telephone to the client via a local network connecting the VoIP telephone to the client.

76. The method for instant voice messaging according to Claim 67, wherein the method further comprises:

maintaining a transport server mesh including a plurality of transport servers for routing instant voice messages; and

load-balancing the instant voice messages within the transport server mesh.